

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 10/649,777

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (withdrawn): A ferrite core for use in coupling transformers and distributing transformers in CATV equipments, said ferrite core being made of a ferrite having a saturation magnetostriction $|\lambda_s|$ of 8×10^{-6} or less in an absolute value and an initial permeability μ_i of 300 or more.

2. (withdrawn): A ferrite core for use in coupling transformers and distributing transformers in CATV equipments, said ferrite core being made of a ferrite having an initial permeability μ_i of 300 or more, and a maximum impedance distortion ratio of 4 or less after magnetic saturation in a frequency range between 500 kHz and 2000 kHz including a mechanical resonance frequency f_0 .

3. (withdrawn): The ferrite core according to claim 1, wherein said ferrite has a residual magnetic flux density B_r of 150 mT or less in a magnetic field of 10 to 2000 A/m.

4. (withdrawn): The ferrite core according to claim 2, wherein said ferrite has a residual magnetic flux density B_r of 150 mT or less in a magnetic field of 10 to 2000 A/m.

5. (withdrawn): The ferrite core according to claim 3, wherein said ferrite has a squareness ratio of 0.5 or less, said squareness ratio being represented by a ratio B_r/B_m of a residual magnetic flux density B_r to a maximum magnetic flux density B_m .

6. (withdrawn): The ferrite core according to claim 4, wherein said ferrite has a

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squareness ratio of 0.5 or less, said squareness ratio being represented by a ratio Br/Bm of a residual magnetic flux density Br to a maximum magnetic flux density Bm.

7. (withdrawn): The ferrite core according to claim 1, wherein said ferrite has a composition comprising as main components 47 to 50% by mol of Fe₂O₃, 29 to 34% by mol of ZnO, 9 to 15% by mol of NiO, and 7 to 9% by mol of CuO.

8. (withdrawn): The ferrite core according to claim 2, wherein said ferrite has a composition comprising as main components 47 to 50% by mol of Fe₂O₃, 29 to 34% by mol of ZnO, 9 to 15% by mol of NiO, and 7 to 9% by mol of CuO.

9. (withdrawn): The ferrite core according to claim 1, wherein said ferrite has a composition comprising as main components 50 to 55% by mol of Fe₂O₃ and 10 to 14% by mol of ZnO, the balance being substantially MnO.

10. (withdrawn): The ferrite core according to claim 2, wherein said ferrite has a composition comprising as main components 50 to 55% by mol of Fe₂O₃ and 10 to 14% by mol of ZnO, the balance being substantially MnO.

11. (withdrawn): The ferrite core according to claim 1, wherein said ferrite core is a multi-hole core or a toroidal core.

12. (withdrawn): The ferrite core according to claim 2, wherein said ferrite core is a multi-hole core or a toroidal core.

13. (currently amended): A CATV equipment comprising a coupling transformer and/or a distributing transformer, each of which is constituted by a ferrite core and a winding wound around said ferrite core, said ferrite core being made of a ferrite having a saturation

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magnetostriction $|\lambda_s|$ of 8×10^{-6} or less in an absolute value and an initial permeability μ_i of 300 or more,

wherein said ferrite has a residual magnetic flux density Br of 150 mT or less in a magnetic field of 10 to 2000 A/m, and wherein said ferrite has a squareness ratio of 0.5 or less, said squareness ratio being represented by a ratio Br/Bm of a residual magnetic flux density Br to a maximum magnetic flux density Bm.

14. (currently amended): ~~A-The~~ CATV equipment comprising a coupling transformer and/or a distributing transformer, each of which is constituted by a ferrite core and a winding wound around said ferrite core according to claim 13, said ferrite core being made of a ferrite having an initial permeability μ_i of 300 or more, and a maximum impedance distortion ratio of 4 or less after magnetic saturation in a frequency range between 500 kHz and 2000 kHz including a mechanical resonance frequency f_0 .

15. - 18. (canceled).

19. (new): The CATV equipment according to claim 13, wherein said ferrite has a composition either comprising as main components 47 to 50% by mol of Fe_2O_3 , 29 to 34% by mol of ZnO , 9 to 15% by mol of NiO , and 7 to 9% by mol of CuO or comprising as main components 50 to 55% by mol of Fe_2O_3 and 10 to 14% by mol of ZnO , the balance being substantially MnO .

20. (new): The CATV equipment according to claim 13, wherein said ferrite core is a multi-hole core or a toroidal core.

21. (new): A bi-directional CATV system comprising transmission lines comprising

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coaxial mainlines or optical fiber cables disposed between a headend and the terminals of CATV subscribers, at least part of said CATV equipments comprising a coupling transformer and/or a distributing transformer, each of which is constituted by a ferrite core and a winding wound around said ferrite core,

said ferrite core being made of a ferrite having a saturation magnetostriction $|\lambda_s|$ of 8×10^{-6} or less in an absolute value and an initial permeability μ_i of 300 or more, wherein said ferrite has a residual magnetic flux density B_r of 150 mT or less in a magnetic field of 10 to 2000 A/m, and wherein said ferrite has a squareness ratio of 0.5 or less, said squareness ratio being represented by a ratio B_r/B_m of a residual magnetic flux density B_r to a maximum magnetic flux density B_m .